

March 4, 2013

TESTIMONY IN SUPPORT OF CT HB 6527, An Act Concerning Genetically Engineered Baby Food

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I have a degree in environmental chemistry from University of Connecticut and soon finishing a master's degree in environmental engineering. I have studied the environment extensively and have read a lot about genetically engineered (GE) crops (GMOs, genetically modified organisms). I try my best to avoid genetically engineered crops and food made from them which is difficult because there are no labels and at times it is impossible.

Eighty-five to about ninety-five percent of all corn, soy, cotton (cotton oil is used in foods), rapeseed (plant canola oil comes from) and sugar (from sugar beets which is most sugar unless stated otherwise) in this country are now genetically engineered. These crops are engineered in a lab to have a segment of genes imprecisely infected or shot into their DNA, the segment is an artificial combination of an antibiotic resistant gene, bacterial genes and a segment of DNA from a virus. The segment fits into the plants DNA and the plant cells are tricked into synthesizing a new protein.

Most if not all processed food contains these crops or ingredients derived from these crops. Most if not all animals are fed these crops. Most people do not know that these crops are genetically engineered or what that means and are unaware that they are in most food, even the food they feed their newborn babies. Soy and corn or ingredients made from them or the other crops mentioned are found and can even be common in baby formula and baby food.

These genetically engineered crops are made to be resistant to glyphosphate, the herbicide with the commercial name roundup; in addition some corn and cotton plants are also engineered to synthesize a protein referred to as the BT toxin which is an insecticide. All of these crops have mutated DNA with inserted segments from a virus and bacteria and contain proteins that are completely new to food.

The genetic engineering process is uncontrollable and the genetic engineering process itself regardless of what genes and subsequent proteins are added and created was never proven to be safe. Actually Arpad Pusztai showed that a protein when fed straight to the rats was OK but when the same protein was fed to them in a potato that was engineered to synthesize the protein the rats got sick.

In fact several studies have shown health concerns, a recent being Séralini's (*Food and Chemical Toxicology*) which showed an increase in cancer, liver and kidney dysfunction and toxicity, and premature death. Another study in Canada found the BT toxin protein in the blood and fetus of pregnant woman. Netherwood conducted a study published in *Nature* in 2004 which found some of DNA segments that were inserted to the crop's DNA had transferred to the DNA of gut bacteria in humans.

These crops have not been tested by the government for safety. They are approved based on a 90 day rat feeding study performed by the same companies that produce the crops. That is because in 1992 the Food and Drug Administration (FDA), under Michael Taylor an attorney who worked for Monsanto (the largest producer of GE crops) adopted the Generally Recognized as Safe (GRAS) status for these crops. Later from internal FDA documents obtained in a freedom of information request, attorney Steven Druker was able to determine that some FDA scientists did not agree with a GRAS status.

Recently it was discovered in a study published by Nancy Podevin and Patrick du Jardin (Podevin and du Jardin 2012) in the journal, *GM Crops and Food: Biotechnology in Agriculture and the Food Chain* that the viral DNA commonly used in GE crops also has a partial segment which codes for a viral protein. However they did not know if it was or could be expressed.

The companies producing GE crops are not transparent. It seems difficult to access their testing information, data and seeds for independent studies due in part to patents on the seeds.

Two major discoveries involving DNA have been made after this technology was adopted. The Human Genome Project proved one gene does not only create one function. The other is that there are 4 million gene switches that reside in DNA that was initially thought to be “junk”.

For lack of proven safety and insufficient regulation and a lot of unknowns this is a large experiment with no monitoring or oversight. Monitoring without labels is not possible. These foods have been on the market for 1.5 decades while some health problems are on the rise including food allergies. People have not been able to choose or vote with their wallets for if they want to eat and feed their babies and children this experimental food. Sixty-two other countries have either labeled the food containing these crops or have banned the growing or import of them. Please vote to label the food so that mothers can choose what to feed their newborns, thank you.